SUNDEW AS OFFICINAL PLANT

As the label shows, sundew is not just an object of demonstration in schools or a piece of collection of someone interested in CP but also an officinal plant. In CPN Vol. 9, Number 2, Reinhard Frenzer has already suggested a use of the plant as cough drops. Bioforce Ltd., a firm at Roggwil near the lake of Constance, Switzerland is using sundew extracts in one of its cough mixtures.

The plants (Drosera rotundifolia) are collected by youngsters in the north of Finland every summer. There are 29 of them in Ylkiiminki for example. In the year 1980 they found 166 kg of Drosera in that area which then were immediately sent to Zurich by aeroplane. The plants have to be processed in fresh state. At Roggwil the plants are laid into cold, 43 percent alcohol in order to detach the contents. Subsequently the contents are pressed, filtered and the alcohol withdrawn. Then the product is analysed in a laboratory and finally filled into bottles of 200 or 500 ml together with other extracts.

Tests have proved that some sundew contents called naphtochinone stop certain effects of enzymes and a cramp-loosening as well as a growth-hindering effect for germs like Staphylokokkes, Streptokokkes and Pneumokokkes.

The label says: Drosinula Bronchial-Syrup

Fresh-plant preparation, excellent medicament for catarrh of the respiratory organs, such as obstruction through phlegm, hoarseness or coughing irritation; highly efficient also refractory cases.

Dosage: Adults, 1-2 teaspoons, every 2-3 hours, Children, ½-1 teaspoon, every 2-3 hours

Drosera has achieved growing significance as an officinal plant. Because of an insufficient supply of *D. rotundifolia* one often uses *D. madagascariensis* instead.

I have been told that *D. rotundifolia* is in no way endangered in those areas. This is the official version; perhaps another member of CPS can tell us more about the situation.



Label of Drosinula cough syrup.

The label, however, seems to show *D. spathulata*. A collaborator of that firm has told me that this picture originates from an earlier date and has only indirectly to do with the contents.

I don't know if the syrup is to be sold in other countries.

Addresses:

Bioforce South Africa Pty., Ltd., Benmore/-R.S.A.

Bioforce of America Ltd., Plainview N.Y./ USA

Bioforce Ltd., Troon. Scotland

CARNIVOROUS PLANT TISSUE CULTURE— PRESERVING OUR INTERESTS

by Ron Gagliardo (1216 Cooper Dr., Raleigh, NC 27607)

Over the past couple of years, I have become very involved with plant tissue culture, both of CP and many other plants. Last year, as a freshman at North Carolina State University, I studied growth regulators in carrot cell tissue cultures and their effects on protoplast fusion. Needless to say, this made my first year of college most interesting. I have been working with many different CP in vitro in a home laboratory and with Dr. Bill Carroll of Chatham Botanical have been successful in cloning most genera of CP.

Tissue culture seems rare to me to be the superior method of propagating many rare plants in general, not only CP. However, I am most concerned with carnivores. I have started many cultures with seed, leaf cuttings and apical meristems It is important to keep rare species such as Sarracenia oreophila, s. rubra ssp. alabamensis, Heliamphora, and Darlingtonia.

With regard to sarracenia, I can attest to fast multiplication and overall vigor when grown in vitro. By initiating a culture with an apical meristem (growing tip) of an older sarracenia, it is possible to obtain flowering size in half the time normally required for plants grown from seed. Thus, many mature plants can be obtained quickly for possible reestablishment in depleted natural populations or sites. Tissue culture is also a good means of distributing CP to countries that have strict import requirements.

I am very interested in obtaining rare CP (in the form of seed, cutting or plants) for establishment in vitro. I have been concentrating on *Nepenthes* for a time. From what I can gather, the *Nepenthes* of Kinabalu, Sabah and other areas are falling fast in numbers. I am most interested in obtaining material of any rare species of these areas for tissue culture. I have been thinking of making some kind of proposal to the officials of Sabah National Parks as follows:

- I) Produce in vitro any number of *Nepenthes* endemic to the area in order to re-stock the park.
- 2) Distribute selected plants to CP enthusiasts *only* after completion of the above.
 3) Offer to pay an acceptable royalty to the Park on sales of selected excess stock after completion of above.

I have corresponded with a few of the most noted CP enthusiasts and growers from whom I have received general support for such a project. I would be very interested in the opinions of other ICPS members and anyone else interested in such a project. I am interested only in helping to perserve some of these rare species of CP. If there are better or more feasible methods or means of accomplishing this, then let's go with it. The most important thing now is to find the most viable solution for perserving our quickly disappearing carnivorous plants.